

AMENDMENTS TO THE CLAIMS

Claims 1-52 have been canceled. Please amend claims 53 and 56 and cancel claim 59, as shown in the following listing of the claims:

1-52. (canceled)

53. (currently amended) An ApoA-I agonist compound comprising:

(i) a 18 to 22-residue peptide analogue that forms an amphipathic α -helix in the presence of lipids and that comprises formula (I):



Z_2

or a pharmaceutically acceptable salt thereof, wherein

X_1 is Pro (P), Ala (A), Gly (G), Asn (N), Gln (Q) or D-pro (p);

X_2 is an aliphatic residue;

X_3 is Leu (L);

X_4 is an acidic residue;

X_5 is Leu (L) or Phe (F);

X_6 is Leu (L) or Phe (F);

X_7 is a basic residue;

X_8 is an acidic residue;

X_9 is Leu (L) or Trp (W);

X_{10} is Leu (L) or Trp (W);

X_{11} is an acidic residue or Asn (N);

X_{12} is an acidic residue;

X_{13} is Leu (L), Trp (W) or Phe (F);

X_{14} is a basic residue or Leu (L);

X_{15} is Gln (Q) or Asn (N); X_{16} is a basic residue;

X_{17} is Leu (L);

X_{18} is a basic residue;

Z_1 is H_2N- , or $RC(O)NR-$;

Z_2 is $-C(O)NRR$, $-C(O)OR$ or $-C(O)OH$ or a salt thereof;

each R is independently -H, (C₁-C₆) alkyl, (C₄-C₂-C₆) alkenyl, (C₄-C₂-C₆) alkynyl, (C₅-C₂₀) aryl, (C₆-C₂₆) alkaryl, 5-20 membered heteroaryl or 6-26 membered alkheteroaryl or a 1 to 4-residue peptide or peptide analogue;

each “-” between residues X₁ through X₁₈ independently designates an amide linkage, a substituted amide linkage, an isostere of an amide or an amide mimetic, wherein at least one “-” is a substituted amide linkage, an isostere of an amide or an amide mimetic;

(ii) a 15 to 21-residue peptide analogue according to formula (I) in which at least one and up to eight of residues X₁, X₂, X₃, X₄, X₅, X₆, X₇, X₈, X₉, X₁₀, X₁₁, X₁₂, X₁₃, X₁₄, X₁₅, X₁₆, X₁₇ and X₁₈ are optionally deleted and wherein at least one “-” is a substituted amide linkage, an isostere of an amide or an amide mimetic; or

(iii) an 18 to 22-residue altered peptide analogue according to formula (I) in which at least one of residues X₁, X₂, X₃, X₄, X₅, X₆, X₇, X₈, X₉, X₁₀, X₁₁, X₁₂, X₁₃, X₁₄, X₁₅, X₁₆, X₁₇ and X₁₈ is conservatively substituted and wherein at least one “-” is a substituted amide linkage, an isostere of an amide or an amide mimetic; or an N-terminally blocked form, a C-terminally blocked form or an N- and C-terminally blocked form of formula (I).

54. (previously presented) The ApoA-I agonist compound of Claim 53 which exhibits at least about 38% LCAT-activation activity as compared with human ApoA-I.
55. (previously presented) The ApoA-I agonist compound of Claim 54 wherein at least one “-” is a substituted amide linkage.
56. (currently amended) The ApoA-I agonist compound of Claim 55 wherein the substituted amide linkage has the formula -C(O)NR-, where R is (C₁-C₆) alkyl, substituted (C₁-C₆) alkyl, (C₄-C₂-C₆) alkenyl, substituted (C₄-C₂-C₆) alkenyl, (C₄-C₂-C₆) alkynyl, substituted (C₄-C₂-C₆) alkynyl, (C₅-C₂₀) aryl, substituted (C₅-C₂₀) aryl, (C₆-C₂₆) alkaryl, substituted (C₆-C₂₆) alkaryl, 5-20 membered heteroaryl,

substituted 5-20 membered heteroaryl, 6-26 membered alkheteroaryl, or substituted 6-26 membered alkheteroaryl.

57. (previously presented) The ApoA-I agonist compound of Claim 54 wherein the least one "-" is an isostere of an amide.
58. (previously presented) The ApoA-I agonist compound of Claim 57 wherein the isostere of an amide is -CH₂NH-, -CH₂S-, CH₂CH₂-, -CH=CH- (cis and trans), -C(O)CH₂-, -CH(OH)CH₂-, or -CH₂SO-.
59. (canceled).
60. (previously presented) The ApoA-I agonist compound of Claim 54 wherein the peptide analogue exhibits 40% to 98% helicity in the presence of lipids.
61. (previously presented) The ApoA-I agonist compound of Claim 54 wherein the peptide analogue comprises 40% to 70% hydrophobic residues.
62. (previously presented) The ApoA-I agonist compound of Claim 61 wherein the peptide analogue comprises 50% to 60% hydrophobic residues.
63. (previously presented) The ApoA-I agonist compound of Claim 54 wherein the mean hydrophobic moment, $\langle \mu_H \rangle$, of the peptide analogue is 0.55 to 0.65.
64. (previously presented) The ApoA-I agonist compound of Claim 63 wherein the mean hydrophobic moment, $\langle \mu_H \rangle$, of the peptide analogue is 0.58 to 0.62.
65. (previously presented) The ApoA-I agonist compound of Claim 54 wherein the mean hydrophobicity, $\langle H_o \rangle$, of the peptide analogue is -0.150 to -0.070.

66. (previously presented) The ApoA-I agonist compound of Claim 65 wherein the mean hydrophobicity, $\langle H_o \rangle$, of the peptide analogue is -0.130 to -0.050.
67. (previously presented) The ApoA-I agonist compound of Claim 54 wherein the mean hydrophobicity of the hydrophobic face, $\langle H_o^{pho} \rangle$, of the peptide analogue is 0.90 to 1.20.
68. (previously presented) The ApoA-I agonist compound of Claim 67 wherein the mean hydrophobicity of the hydrophobic face, $\langle H_o^{pho} \rangle$, of the peptide analogue is 0.95 to 1.10.
69. (previously presented) The ApoA-I agonist compound of Claim 54 wherein the pho angle of the peptide analogue is 120° to 160°.
70. (previously presented) The ApoA-I agonist compound of Claim 69 wherein the pho angle of the peptide analogue is 130° to 150°.
71. (previously presented) The ApoA-I agonist compound of Claim 54 wherein the peptide analogue has 3 to 5 positively charged amino acids.
72. (previously presented) The ApoA-I agonist compound of Claim 54 wherein the peptide analogue has 3 to 5 negatively charged amino acids.
73. (previously presented) The ApoA-I agonist compound of Claim 54 wherein the peptide analogue has a net charge of -1, 0, or +1.
74. (previously presented) An ApoA-I agonist-lipid complex comprising an ApoA-I agonist compound and a lipid, wherein the ApoA-I agonist compound is a peptide analogue according to any one of claims 53-73.

75. (previously presented) A pharmaceutical composition comprising an ApoA-I agonist compound according to any one of claims 53-73 or an ApoA-I agonist-lipid complex according to claim 74, and a pharmaceutically acceptable carrier, excipient or diluent.
76. (previously presented) A method of treating a subject suffering from a disorder associated with dyslipidemia, said method comprising the step of administering to the subject an effective amount of the ApoA-I agonist compound of claim 53.
77. (previously presented) The method of Claim 76 in which the disorder associated with dyslipidemia is hypercholesterolemia.
78. (previously presented) The method of Claim 76 in which the disorder associated with dyslipidemia is cardiovascular disease.
79. (previously presented) The method of Claim 76 in which the disorder associated with dyslipidemia is atherosclerosis.
80. (previously presented) The method of Claim 76 in which the disorder associated with dyslipidemia is restenosis.
81. (previously presented) The method of Claim 76 in which the disorder associated with dyslipidemia is HDL or ApoA-I deficiency.
82. (previously presented) The method of Claim 76 in which the disorder associated with dyslipidemia is hypertriglyceridemia.
83. (previously presented) The method of Claim 76 in which the disorder associated with dyslipidemia is metabolic syndrome.